

INTEROPERABLE

The status of public safety interoperable communications in the State of Indiana



Integrated Public Safety Commission/ Project Hoosier SAFE-T

Dear Indiana Taxpayer:

The phrase “first responder” usually brings to mind images of a firefighter rushing into a burning building; a police officer apprehending a dangerous criminal; National Guard forces at the scene of a disaster. First responders rescue motorists from crumpled masses of metal, jump-start hearts that have stopped beating, staunch the bleeding of shooting victims. Certainly, these workers and those in occupations like them, are true everyday heroes.

But public safety and emergency first response involves a multitude of other people: salt truck drivers who prepare the roads before a storm; corrections officers who keep criminals behind bars where they belong; mayors, county commissioners and emergency personnel who prepare disaster plans.

And dispatchers whose efforts are truly the lifeblood of first response. Each and every day in Indiana, an amazingly diverse group of people head to work and contribute in their own way towards the titanic task of protecting Hoosiers. Our goal at the Integrated Public Safety Commission is to provide these diverse groups with a single resource for



public safety communications – a tool which, while valuable for day-to-day public safety operations, can become a life-or-death necessity during a natural disaster or attack.

Thankfully, 2006 brought no massive crises on the scale of Hurricane Katrina or 9-11. For that we are grateful. It's safe to say, however, that each of the 6.3 million Hoosiers who live and work in Indiana benefit each and every day from the work public safety professionals do. These workers may never see their pictures in the paper or on posters, but their courage serves as an inspiration to those who know them, and to those of us working to implement Project Hoosier SAFE-T.

We are proud of the progress we made during 2006. The pages of this annual report give the details of that progress and also provide a look towards our goals for the future. We welcome your comments and ideas.

Sincerely,

The Integrated Public Safety Commission Members & Staff

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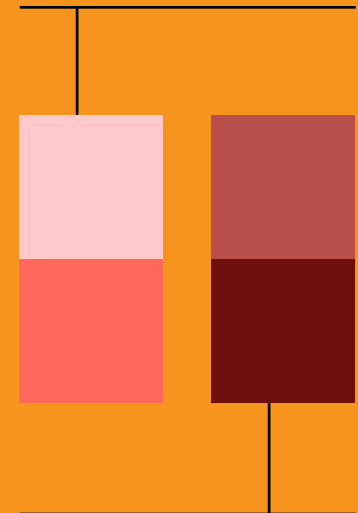
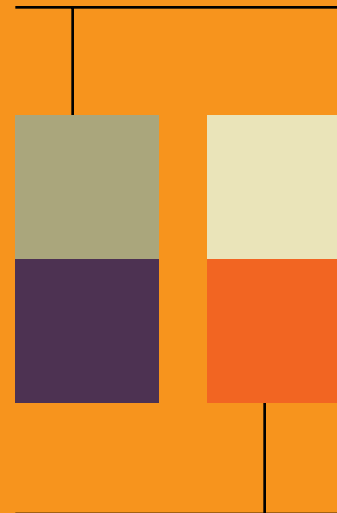
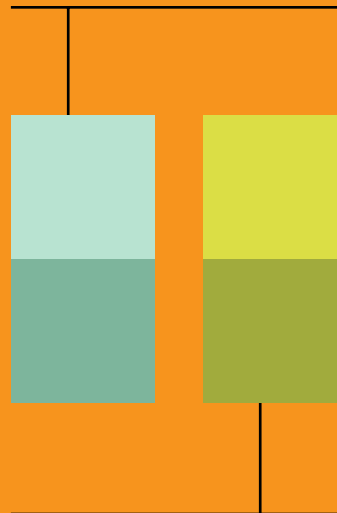
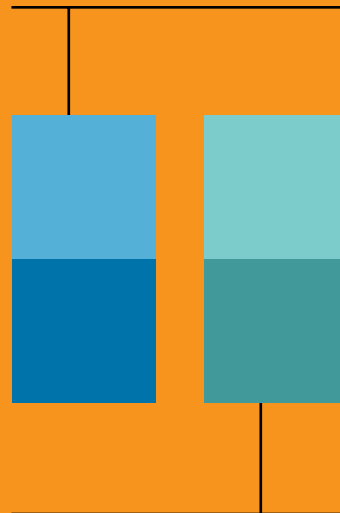
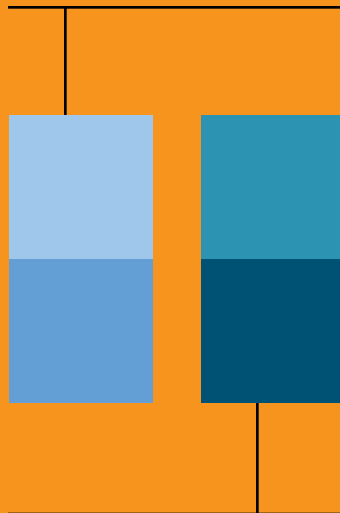
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Tell us what you think; accept our thanks; and join the SAFE-T network

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- By year's end, 2006, 26,000 user id's were programmed into the system. This includes first responders in 89 counties, 17 state agencies (including 2300 state Department of Transportation workers; 1600 Corrections Officers; and 3500 State Police); and four federal agencies.
- The SAFE-T system handled 58,416,670 group calls in 2006. Average System Availability was 99.41% and Average Grade of Service was 99.99%.
- SAFE-T grew by 34 sites in 2006, from 74 to 112.
- SAFE-T now has 107 signed Memorandums of Understanding (MOU's) with Indiana counties, state agencies and federal agencies
- Approximately 90% of the state now has mobile radio coverage under the SAFE-T network.
- The SAFE-T system will be complete by June 2007 for a total construction cost of \$81 million, \$9 million under budget.
- \$9,500,000.00 of total revenue to date has been used to purchase user equipment (radios – portable and mobiles, dispatch consoles)
- SAFE-T received \$850,000 in federal grant funds in the year 2006.
- As a "first wave" state, IPSC conducted complex contract negotiations with Sprint/Nextel for the 800 MHz rebanding effort and began the mammoth task of coordinating the switch for 700 public safety agencies across the state.
- With a grant from the Indiana Department of Homeland Security, IPSC was able to purchase a mobile Site On Wheels (SOW), a portable 5 channel site with an antennae. The SOW will be deployed to areas hit by disaster such as flooding or tornados, and has the ability to connect to existing T1 telecommunication circuits with instantaneous results.
- The International Association of Chiefs of Police (IACP) chose Project Hoosier SAFE-T as the recipient of its coveted 2006 Excellence in Technology Award.
- The National Governor's Association selected Indiana as one of five states to participate a national Public Safety Wireless Communications Policy Academy.
- Project Hoosier SAFE-T was featured in several national publications, including the IACP's Police Chief Magazine.

Our Mission

- to revolutionize Indiana public safety communications by building an interoperable statewide network.
- to balance the need for technological advancement with financial reality
- to deliver a vital public safety need for the least possible cost and maximum local involvement.
- to coordinate local, state, and federal public safety resources, tear down agency and geographical boundaries, and foster cooperation between police, fire, EMS, and other Hoosier first responder and public safety agencies.

OUR MISSION

Who We Are

PROJECT HOOSIER SAFE-T IS REVOLUTIONIZING INDIANA PUBLIC SAFETY COMMUNICATIONS BY BUILDING A STATEWIDE, INTEROPERABLE COMMUNICATIONS SYSTEM FOR HOOSIER FIRST RESPONDERS AND PUBLIC SAFETY PROFESSIONALS.

Project Hoosier SAFE-T is:

- Setting a national standard for long term statewide and regional public safety interoperability solutions that are user-driven and cost-effective.
- Creatively and efficiently using many funding sources to build the system, resulting in a model that truly stands out among all state interoperability initiatives in the United States.
- Attracting national attention for its practical, effective and frugal approach to solving the first responder communications crisis
- Uniting local, state and federal governments to give first responders a vital tool they need to combat crime, respond to emergencies and save lives.
- Committed to reaching our bottom-line goal of Saving Lives while Saving Money.
- Committed to making the system as accessible as possible for local agencies by requiring NO USER FEES, a savings that is unheard of in other states.

ABOUT SAFE-T WHY WE EXIST

9-11... Hurricane Katrina... Oklahoma City Bombing... Deadly VX nerve agent neutralization at Newport... Indiana tornados... Prisoner transport... Police pursuits... Snow storms... Bank robberies...

All these events and more pound home a harsh lesson: whether a monstrous act of nature, an act by monstrous men or day-to-day efforts to keep people safe, the bottom line remains the same. Lives can be saved and suffering can be lessened if first responders involved in protection and recovery missions can talk with each other.

Fortunately, Indiana is well on the way to building a border-to-border communications system that will allow interoperable communications between agencies and public safety disciplines. Project Hoosier SAFE-T serves each of the 6.2 million Hoosiers who live and work in Indiana. Specifically, the network is available to an estimated 600 police chiefs and town marshals; more than 1,000 fire departments; 92 sheriff departments and emergency management agencies; countless emergency medical services providers; and thousands of other first responders across Indiana. Additionally, SAFE-T provides a critical communication link for the thousands of local, state and federal public workers who transport prisoners, plow snow, monitor parks, remain on alert for national, state and local threats, and perform numerous other daily public service jobs.

Here in Indiana, there are dozens of compelling reasons to focus on solving the interoperability crisis:

Natural Disasters: According to statistics compiled by the US Disaster Center, Indiana ranks number one in the nation for tornado risk. Our 6.2 million residents experience extremely strong storms and tornado activity throughout most of the warm weather months and into fall. In addition, much of the state experiences severe ice storms causing significant buildup of ice on the towers. Three communications towers in the state have collapsed due to weather conditions in the last 10 years. The Evansville tower fell during severe straight-line winds (estimated by the National Weather Service to be in excess of 200 m.p.h.); a tornado destroyed the tower at Lafayette; and the Geetingsville tower collapsed during a severe ice storm.



ABOUT SAFE-T WHY WE EXIST



Chemical and Biological Threats: Both the Crane Naval Surface Warfare Center and the US Army Newport Chemical Weapons storage facility are located in Indiana. An accident or attack on either of these facilities would simply be catastrophic. The Newport Depot stores the chemical nerve agent VX, the deadliest nerve agent ever created. A drop the size of a pinhead, absorbed through the skin, can kill by severely disrupting the nervous system. Indiana workers began chemically neutralizing 1,269 tons of this deadly nerve agent late in the summer of 2004. The Crane Naval Surface Warfare Center researches, processes and stores weapons materials such as projectiles, bombs, missiles, ammunition, and develops and tests chemical, biological and explosive detection equipment and systems. In the event of a disaster or attack, interagency, interoperable communications would be critical. Failure of one or more communication sites in these areas would be catastrophic not only to Indiana residents, but to those living in adjoining states.



Geography: There is a reason Indiana is known as "The Crossroads of America." Our state has seven (7) interstate highways, more than any other state in the nation. In addition, we ship more than 70 million tons of cargo by water each year, which ranks us 14th among all U.S. states. More than half of Indiana's border is water, which includes 400 miles of direct access to two major freight transportation arteries: the Great Lakes/St. Lawrence Seaway (via Lake Michigan) and the Inland Waterway System (via the Ohio River).



international racing events every year, and during each of these events, the state's population rises exponentially. The Indianapolis Motor Speedway is, capacity-wise, the largest sports stadium in the world. Average attendance at the Indy 500 race each year is 400,000. The Brickyard 400 attracts about 300,000 spectators and the Formula One race attracts another 200,000 visitors and fans. Such a dramatic increase in population demands extremely reliable communications interoperability and an iron-clad backup should a disaster occur.

ABOUT SAFE-T SYSTEM SPECS

SAFE-T operates on a Motorola 4.1 Astro Smartzone OmniLink 800 MHz trunked voice and data system. The SAFET network supports both analog and digital radios, providing 95% mobile radio coverage state-wide using 126 communications sites connected by T1 lines and microwave. Project Hoosier SAFE-T is building and maintaining the system backbone: towers, antennas, shelters, generators, transmitters, base stations, cabling and frequencies.

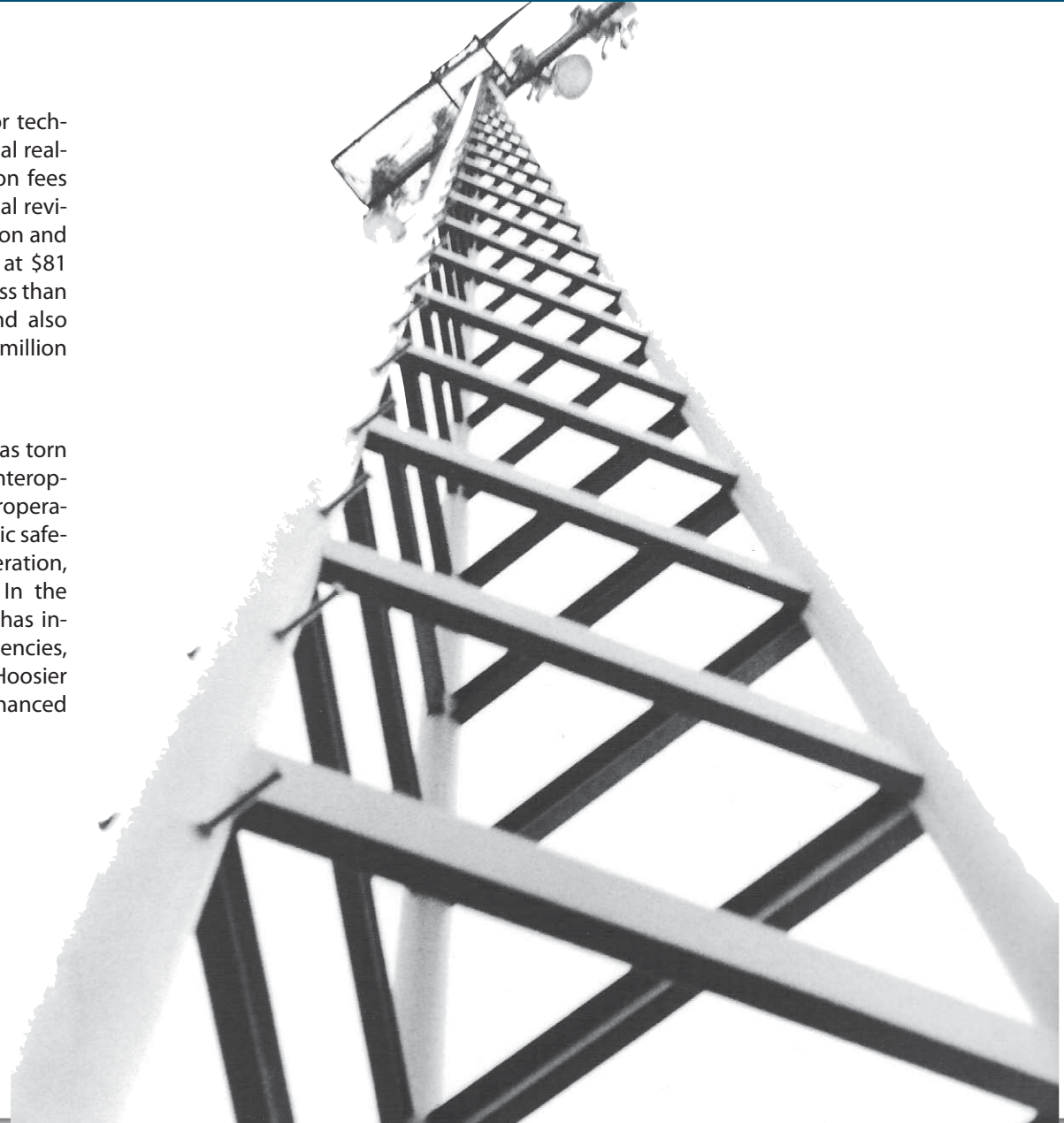
Participating agencies provide their own user equipment, including dispatch consoles, radios and computers, which they can buy at a 20-25% discount through the state. Participation is voluntary and agencies pay no user fees. The goal is to make interoperable communications affordable and available for every community.

Although most other states are tackling the interoperability issue, SAFE-T is unique in several areas:

- The system was designed from the bottom up, with local users dictating their needs rather than the other way around. It is all inclusive: state and federal agencies that are involved in the protection of Hoosiers can join as well as local first responder agencies such as fire departments, police departments and emergency services providers.

- The system balances the need for technological advancement with financial reality. Locals pay no user or connection fees to access the system. Recent financial revisions put the final cost of construction and maintenance of the SAFE-T system at \$81 million, a number that is strikingly less than what other states are spending and also notably less than the original \$98 million project estimate.

Perhaps most importantly, SAFE-T has torn down "turf" battles that prevented interoperability in the past. The word "interoperable" applies to much more than public safety communications. It implies cooperation, connection and interdependence. In the truest sense of this word, the IPSC has interoperated with many different agencies, and the huge success of Project Hoosier SAFE-T thus far has been greatly enhanced by many partnerships.



ABOUT SAFE-T PROJECT HISTORY



1997

- Responding to requests from Indiana State Police officials, state legislators begin to address the severe deficiency in public safety communications by establishing the State Agency Public Safety Commission (SAPSC), IC 10-1-10. The SAPSC is directed to help state agencies transition to a statewide 800 MHz communications system, which would be available to local and federal agencies as well.
- The State contracts with public safety communications consultants to develop a strategic plan.
- Law enforcement agencies and the Governor's Office sponsor a Governor's Summit on Integrated Law Enforcement. More than 300 local, state and federal first responders and elected officials attend the Summit to talk about ways to voluntarily share resources and information.

1998

- Focus group discussions are held with public safety personnel statewide, and participants provide input and share feedback on public safety communications issues. Regional meetings are held in Hobart, South Bend, Fort Wayne, Marion, Lafayette, Richmond, Indianapolis, Terre Haute, Bloomington, Batesville and Evansville. This information is used to draft a strategic plan.



- More than 400 public safety representatives and elected officials attend the Governor's 2nd Annual Summit to receive and discuss The Statewide Public Safety Voice/Data Communications System Strategic Plan.

1999

- The state issues a Request for Proposal (RFP) for a statewide public safety communications system. Eight vendors respond. A team representing local, state and federal public safety and government agencies review vendor proposals and select a winning contractor.
- The Indiana General Assembly creates the Integrated Public Safety Commission (IPSC) to coordinate Project Hoosier SAFE-T. The commission also has authority over other multi-agency public safety issues. The IPSC is made up of 12 members representing fire departments, emergency management agencies, emergency medical service providers, police departments, elected officials, and other public safety disciplines.
- The State selects Motorola as the winning contractor for Project Hoosier SAFET. Strategy discussions begin between the State's negotiations team and Motorola.



2000

- More than 500 local, state and federal first responders, public safety professionals and elected officials attend the third Governor's Summit to discuss Project Hoosier SAFE-T and the benefits of interagency communications. Lt. Governor Joseph Kernan, Speaker of the House John Gregg and President Pro Tem Bob Garton address the conference luncheon. In an unprecedented show of support, 68 counties form 12 consortiums to be the first to join the Project Hoosier SAFE-T system as a demonstration project. The consortiums generate nearly 800 support letters from local government and public safety leaders.
- The Northeast Indiana Public Safety Voice and Data Consortium, Hoosier Partners, Johnson County Emergency Communications Consortium and the Southeast Indiana Regional Communications Consortium are selected to participate in Demonstration Projects. These projects are intended to demonstrate the benefits and cost savings of Project Hoosier SAFE-T.
- Contract negotiations with Motorola are completed and a contract is signed.

ABOUT SAFE-T PROJECT HISTORY

- Using a creative combination of federal grants and partnerships with state and local agencies, construction of Project Hoosier SAFE-T begins.

2001

- Governor's Summit 2001 on Project Hoosier SAFE-T, "Bridging the Communications Gap" is held. Nearly 600 public safety officials and government leaders discuss key issues concerning the proper steps for public safety agencies to join Project Hoosier SAFE-T and funding for both system infrastructure and subscriber equipment.

2002

- Johnson County public safety agencies are the first to "go live" on the SAFE-T system. All public safety officials, fire, police, EMS, and more, in Johnson County, are equipped with updated, technologically advanced communication tools.
- Four communications sites in southeast Indiana become operational on the SAFET network.
- Spurred in part by the 9-11 terrorist attack, the Indiana General Assembly passes HEA 1001, which dedicates a portion of existing BMV fees to help fund SAFE-T.
- HEA 1001 becomes effective providing long-term funding for SAFE-T. A staff of five is hired to ensure the successful implementation of SAFE-T.
- The IPSC partners with INDOT to integrate SAFE-T along the Toll Road in Northern Indiana. INDOT provides funding, personnel, and resources to help IPSC construct and implement the system on a long term basis. The State Emergency Management Agency announces that it wants

to upgrade five central Indiana communications sites to the SAFE-T system by October 2003 to ensure adequate response in the event of a disaster at the Newport Chemical Depot. SEMA not only aids with construction costs, it also helps local agencies buy equipment with funds from the Federal Emergency Management Agency.

- Tornadoes rip through Indiana, destroying many communities. The tornado ripped an amazingly similar path to a 1996 storm, which devastated Johnson County. In 1996, it took first responders 96 hours to restore control and calm partly due to the 18 incompatible communications systems in the county. In 2002, it took only 7 hours, thanks to the SAFE-T system. Four law enforcement and nine fire departments on the SAFE-T network issued 12,955 transmissions in 7 hours, almost 31 per minute and 4,000 in the peak 2-hour period. All reports indicate that SAFE-T performed extremely well, enabling first responders to properly respond to the natural disaster.

- The City of Crawfordsville in Montgomery County joins SAFE-T, becoming the second entity to participate in the statewide program. Drug raids in Madison, involving over 70 officers from multiple agencies using the SAFE-T network for tactical coordination, result in 25 arrests and 116 criminal charges against those arrested.

2003

- IPSC staff and vendors begin statewide implementation of the SAFE-T network the northeast part of Indiana. This first phase consists of 55 communication sites stretching from Steuben County to Sullivan County and from Lake County to Ohio County.

2003-2004

- Build-out of the system progresses through the northern and central parts of the state. Officials from other states begin to look at Project Hoosier SAFE-T as a national model. By the end of 2004, 54 sites are active on the system.

2005

- IPSC staff celebrates the halfway point in the build out of the system, activating the 63rd communications site in Brazil, IN. By the end of the year, 74 sites were active on the system and 16,000 user ids were registered in the system database.

- In addition to managing an extremely aggressive buildout schedule, IPSC staff spearheaded informational meetings and provided details to local users about the 800 MHz Rebanding process.

- The National Academies of Science asks IPSC to participate in its national panel, "Information Technology to Enhance Disaster Management."

2006

- The International Association of Chiefs of Police (IACP) selects Project Hoosier SAFE-T as the recipient of its coveted 2006 Excellence in Technology Award.
- National Governor's Association selects Indiana for participation in Public Safety Wireless Communications Policy Academy.
- IPSC closes out the year with 112 active sites, 26000 user ids in the database, and 58,416,670 group calls.

HOW WE'RE DOING

2006 "LEADERSHIP IN TECHNOLOGY" AWARD

2006 PROGRESS

2006 was a strong year. IPSC staff formalized agency performance measures to gauge our progress, predetermine potential problems and to ensure that the system is operating at peak performance. User agencies continued to join the system in rapid numbers. National attention continued to focus upon SAFE-T as a pragmatic, fiscally prudent and technologically effective system. Site construction proceeded at a rapid pace. Additionally, IPSC continued to coordinate the herculean task of 800 MHz rebanding for more than 700 Indiana agencies.



SAFE-T RECEIVES INTERNATIONAL HONOR

The International Association of Chiefs of Police (IACP) named Indiana's Project Hoosier SAFE-T as the recipient of its coveted **2006 Excellence in Law Enforcement Communications and Interoperability Award**. The Excellence in Technology Award is designed to promote superior achievement and innovation in the field of communication and information technology and is open to local, tribal, state, provincial, federal, and multi-jurisdictional law enforcement agencies. SAFE-T was chosen "after an exhaustive and highly competitive review of applications submitted from around the world," according to the IACP.

SAFE-T Implementation Director Dave Smith accepted the award at the IACP Law Enforcement Information Management Conference in June. The IACP also asked Smith to present an overview of the program at the annual IACP Conference in Boston in October.



"I am proud that Project Hoosier SAFE-T is rightfully being recognized as a national model. In Indiana, by connecting first responders of all disciplines together with the highest quality communications system, we have improved the public's safety and are now better prepared to rapidly respond to a homeland security crisis."

--Indiana Governor Mitch Daniels

HOW WE'RE DOING

WIRELESS COMMUNICATIONS POLICY ACADEMY

SAFE-T CHOSEN FOR NATIONAL PUBLIC SAFETY POLICY ACADEMY

In August, SAFE-T learned that The National Governors Association (NGA) selected Indiana as one of five states to participate a national **Public Safety Wireless Communications Policy Academy**, a program created to help governors and other state and local policymakers develop statewide interoperability plans to improve emergency response communications.

The \$50,000 grant funds the intensive twelve-month process, which includes an in-state policy workshop, policy academy meetings and customized technical assistance. In addition to working within their own teams, Indiana is working closely with peers from other states and a "faculty" of government specialists, researchers and other experts. .

Success of the SAFE-T system depends upon unified and clear system policies and operating procedures as well as system training and exercises. The NGA Public Safety Wireless Communications Policy Academy is providing Indiana with unsurpassed resources as we create this plan.



Specifically, Indiana's goals as a participant in the Public Safety Wireless Communications Policy Academy are to:

- * Perform a detailed assessment of existing communications systems across the state, identify weak points and/or non-existent connections, and establish an extensive database containing information about current county communications capabilities, equipment, and infrastructure.
- * Establish short and long-term interoperability recommendations and timelines, including plans to transition disparate systems into the SAFE-T network; practical use of all other available technologies; recommendations on how to help cash-strapped locals transition into a standards-based interoperability architecture; and communications redundancy plans in the event of a catastrophic, total communications failure.
- * Formulate a strategy to effectively distribute the Statewide Interoperability Plan to local first responders in all 92 Indiana counties, educate them about policies, mutual aid channels and system best practices, and conduct exercises to ensure agencies and users are following interoperability protocols.
- * Renew, refresh, and refocus our vision for the Midwest Public Safety Communications Consortium (MPSCC), our regional effort to establish interoperable connections and capabilities with neighboring states (Ohio, Michigan, Illinois, and Kentucky).

Public Safety Wireless Communications Policy Academy: Indiana Executive Team

- **John Von Arx**, Public Safety Policy Director, Governor's Office;
- **Dave Smith**, Implementation Director, Integrated Public Safety Commission;
- **Eric Dietz**, Director, Indiana Department of Homeland Security;
- **Nick Gulling**, Sheriff, Hancock County;
- **Bob Plummer**, Public Safety Director and Fire Chief, City of Bluffton;
- **Fred Pryor**, Lt. Colonel, Indiana State Police;
- **Lori Forrer**, Communications Supervisor, Cass County;
- **Kevin Morlan**, Major, Jeffersonville Police Department

Indiana Team results from a brainstorming session held during an NGA all-state Policy Academy meeting held in Indianapolis in November.



HOW WE'RE DOING 800 MHz REBANDING



"It's Like Changing a Flat Tire While Driving 70 MPH"

Throughout 2006, IPSC staff continued to coordinate Indiana's 800 MHz Rebanding effort. This project, one of the most complex communications tasks ever attempted, requires negotiation, system architecture engineering, inventory management, legal services related to contracts, financial review and approval, and field installation services.

No doubt, the Sprint/Nextel 800 MHz Rebanding project is a pain for all first responder and public safety agencies. For IPSC, it presents even more of a headache, since we serve as the licensing agency for approximately 700 Indiana local agencies.

In order to accomplish rebanding for the state of Indiana, each of the 25,000 radios and the associated equipment for each of the active communications sites has to be "touched" to determine whether they have to be retuned, reprogrammed or replaced in order to operate on a new frequency.

800 MHz Rebanding Project Checklist

- Develop and implement a communication plan to brief users and keep them informed of project status.
- Inventory all equipment affected (approx. 700 user agencies/25,000 radios).
- Work with equipment vendors to determine which equipment must be reprogrammed/retuned/replaced and the cost associated with each.
- Negotiate a Planning Funding Agreement with Sprint/Nextel
- Provide Sprint/Nextel with an accurate inventory of affected equipment and a breakdown of the minimum necessary costs associated to comply with the FCC mandated 800 MHz Transition.
- Prepare a Transition Plan for the State of Indiana and submit it to Sprint/Nextel.
- Negotiate an agreement with Sprint/Nextel.
- Document both pre-transition and post-transition radio system coverage.
- Transition to the new channels with no interruption in communications.
- Test, accept, and operate post-transition radio systems that are comparable to the pre-transition radio systems.
- Minimize the impact on Indiana public safety agency personnel and ensure there is no negative impact on the safety of the public served by the State of Indiana and the User Agencies.
- To have zero financial impact on Indiana taxpayers.

Held 7 Regional user meetings. Created 800 MHz section on website for updates.

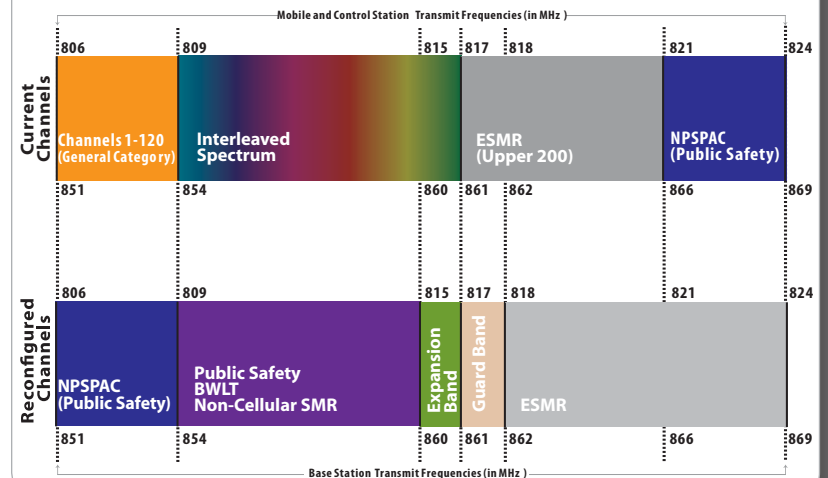
Hired EMR Consulting - Terre Haute to manage the 800 MHz rebanding process for licenses held by the State of Indiana

Almost complete!

Almost complete!

This agreement provides for reimbursement of costs associated with the reconfiguration process and addressed sticky issues such as the process of how Sprint/Nextel will reimburse the multitude of local agencies.

800 MHz FREQUENCY BAND PRE AND POST RECONFIGURATION



HOW WE'RE DOING SITE-ON-WHEELS



Southern Indiana is especially prone to flooding disasters. This picture was taken in Princeton, Indiana after a severe storm in 2005.

SITE ON WHEELS: PORTABLE, ON-DEMAND COVERAGE



The ability to re-enable communications interoperability is a critical component in our mission to save lives, protect property, and coordinate disaster and all-hazard operations. A \$500,000 grant from the Department of Homeland Security allowed IPSC to purchase a mobile Site On Wheels (SOW), a portable 5 channel site with an antennae. The SOW will be deployed to areas hit by disaster such as flooding or tornados, and has the ability to connect to existing T1 telecommunication circuits with instantaneous results. The SOW will also be used to boost communications coverage during special events that require concentrated coverage or

specialized communications. The SOW houses a JPS 1000 unit to provide interoperable communications between VHF, UHF, EDACS and other radios and will be available to any public safety agency during an emergency.

Saving Lives, Saving Money: Indiana's Pragmatic Approach Solves Interoperability Crisis

By David C. Smith, Implementation Director, Indiana Integrated Public Safety Commission, Indianapolis, Indiana

Five years ago terrorists attacked the United States, searing a permanent scar of pain upon the country. One year ago, hurricanes destroyed centuries-old cities and took countless lives. Each day, police forces in communities across the country are fighting battles to protect families. These events, and countless others, serve as a daily reminder of a lesson we have yet to learn: lives can be saved and suffering can be lessened if first responders involved in protection and recovery missions can talk with each other.

Indiana is well under way toward providing a state border-to-border interoperable communications system for first responders. In typical Hoosier fashion, we're solving the problem creatively, pragmatically, and frugally. Instead of building a system from the top down, visionary law enforcement and state officials convened local police, sheriffs, firefighters, elected officials, and other interested users in a series of statewide summits. A clear message came from these summits: Interoperability is not about technology. It is about money and cooperation. A cutting-edge system is useless if communities cannot afford the equipment to use it or if they simply do not want to cooperate.

What is SAFE-T?

As a result of the locally driven planning process, Project Hoosier SAFE-T evolved into a realistic, wide-berth network that allows almost all local systems, from older VHF to the newest digital systems, to interoperate. SAFE-T operates on a Motorola 4.1 Astro Smartzone OmniLink 800 MHz trunked voice and data system. It supports both analog and digital radios, providing 95 percent mobile radio coverage statewide using 126 communications sites connected by T1 lines and microwave.

Project Hoosier SAFE-T is building and maintaining the system backbone: towers, antennas, shelters, generators, transmitters, base stations, cabling, and frequencies. Participating agencies provide their own user equipment, including dispatch consoles, radios, and computers, which they can buy at a 20-25 percent discount through the state. Participation is volun-

tary and agencies pay no user fees. The goal is to make interoperable communications affordable for every community.

Funding for SAFE-T

The 2002 Indiana General Assembly authorized funding for Project Hoosier SAFE-T. No new funding source was created and, as of 2005, approximately \$39.9 million in funding has come from the state. In addition to paying for site construction and equipment, these funds pay for operating costs and site maintenance.

To date, more than 40 percent of the build-out has been funded by federal sources. Project Hoosier SAFE-T's long-term strategy is not to own towers but rather to share space on existing state-owned facilities or lease from third-party commercial vendors. SAFE-T partnered with the Indiana State Police, the Indiana Department of Transportation, and counties to share facilities where possible.

Who SAFE-T Serves

Officially, Project Hoosier SAFE-T serves each of the 6.2 million Hoosiers who live and work in Indiana. Specifically, the network is available to an estimated 600 police chiefs and town marshals, more than 1,000 fire departments, 92 sheriff's departments and emergency management agencies, countless emergency medical services providers, and other first responders across Indiana.

SAFE-T also provides a critical communication link for the thousands of local, state, and federal workers who transport prisoners, plow snow, monitor parks, and perform numerous other daily public service jobs.

Why Is SAFE-T Successful?

The system was designed from the bottom up, with local users dictating their needs. It is all-inclusive: state and federal agencies are on the system and all local agencies that provide any sort of public safety service can join as well.

The system balances the need for technological advancement with financial reality. Locals pay no user or connection fees to access the system. Recent financial revisions put the final cost of construction and maintenance of the SAFE-T system at \$79 million, notably less than the original \$98 million project estimate.

Perhaps most importantly, SAFE-T has stopped turf battles that prevented interoperability in the past. Those who have been carrying the interoperability banner for years know that the term means much more than passing out cross-platform capable radios. The word "interoperable" implies cooperation, connection, and interdependence. In the truest sense of this word, Project Hoosier SAFE-T has sparked unprecedented cooperation between public safety agencies and localities. Indeed, SAFE-T has become much more than a technological advancement of communications equipment; SAFE-T represents an unprecedented integration of people working toward a common objective.

2006 SAFE-T Status

As of summer 2006, the Project Hoosier SAFE-T has 95 active communications sites, and 21,000 user radios are registered in the system database. It covers first responders in 77 counties; 17 state agencies (including 3,600 state police officers, 2,300 state Department of Transportation workers, and 1,700 corrections officers); and three federal agencies.

During one six-month period, December 2005 to July 2006, the system handled more than 20,000,000 group calls.

The \$79 million final price tag is \$11 million less than original estimates. Until 2006, the system was funded with no debt incurred. The 10-person IPSC staff has aggressively pursued supplements for state money with federal congressional earmarks, homeland security funds, and CDC Bio-Terrorism funds.

Professor Viktor Mayer-Schönberger of Harvard University's Kennedy School of Government cited the SAFE-T approach as a "most laudable exception" to the typical patchwork approach to achieving interoperability. Perhaps a local police officer said it best. While sitting at a table discussing talk groups, he stated, "This is the best talk group there is." Indeed, by fostering communication between agencies and users, SAFE-T not only bridged the technological barriers to public safety communication, but it also helped break down the personal communications blockades that kept agencies isolated in the past. ■

HOW WE'RE DOING IN THE NEWS

THE INDIANAPOLIS STAR

"Where the Spirit of the Lord is, there is Liberty" 2 Cor. 3:17

A GANNETT NEWSPAPER • DUTYSTAR.COM

CITY EDITION • 30 CENTS

5 years after Sept. 11, Indiana continues work to safeguard state

...The inability of emergency workers to speak to one another on Sept. 11 was one of the stark lessons from that day because it contributed to so many firefighters' deaths in the World Trade Center, said David Smith, director of implementation for Project Hoosier SAFE-T...

...Vermillion County Sheriff senior deputy Bob Spence, whose district includes the Newport Chemical Depot, where thousands of gallons of a deadly Cold War-era nerve agent are stored, said the new system has been amazing.

The digital radio eliminates the old, unreliable VHF system that sometimes resulted in officers shouting over each other to be heard on the same channel. The digital system allows several simultaneous conversations on separate channels.

"The old system was just antiquated. Now I can be 60 miles away and talk to my county on the radio. It's just unreal," Spence said.



Research Report

Review of Statewide Interoperability Planning Efforts Across the Country

...By involving people that were dedicated to solving interoperability, Indiana was able to create an effective interoperability plan... Indiana's experience highlights the way in which user fees can be a major impediment to local participation. Most important of all, there was consistent communication with all interested parties throughout the process.



Strategies for States to Achieve Public Safety Wireless Interoperability

...encouraging the development of flexible and open architecture and standards. For example, Indiana requires localities to use Project 25 standards before allocating funds toward their public safety needs. To date, Indiana has 69 active communications site, 16,000 registered users over 74 state, local, and federal agencies using a 800 MHz trunked voice and data system that is Project 25 compliant.

HOW WE'RE DOING PERFORMANCE MEASURES

AGENCY METRICS

During the 2005 legislative session, the General Assembly mandated a review of all executive level agencies. (Public Law 246-2005, Section 255.) The purpose of these reforms is to improve Indiana State government's service to Hoosiers, and create a more transparent, performance-informed budgeting process. For the Integrated Public Safety Commission, it was an opportunity to formalize performance measures to ensure that the system is operating at peak performance.

IPSC staff purposely set the bars very high with measures to gauge customer service, efficiency, and program performance.

About the Measures

Number of sites completed: This self-explanatory category reflects the number of sites that IPSC constructed and implemented in 2006. A number of factors influence the numbers in this category, including whether the is an existing tower

available within the desired area, weather that prevents construction, and the length of lease negotiations.

On budget: current cost of system: The negotiated contract with Motorola for construction and implementation of the system is \$90 million. IPSC is currently on target to complete the system for \$81 million, 9 million under budget.

Cost per user per month to maintain: This metric helps us compare system costs with other states to ensure taxpayers are getting the best "value" for their dollar. Indiana does not charge user fees like most other states, but this figure gives us a baseline for comparison.

Total system availability and grade of service metrics are used to ensure the system is performing optimally. Total system performance for the year 2006 was excellent.

Individual site availability: This metric, while "in the red" will continue to improve as sites on the system stabilize and connectivity/programming issues are tweaked. One issue that dramatically affects individual site performance is T-1 connectivity. IPSC staff spends a great deal of time working with the telephone companies to get them to improve their connections and products. Weather issues also affect performance. Even tiny "blips" caused by weather disturbances can deeply affect performance percentages. Recognizing that this metric will be hard to achieve, even over time as the system stabilizes, IPSC staff chose to keep the bar high.

Performance Level Description	Performance Levels			2006 Q1	2006 Q2	2006 Q3	2006 Q4	2006 Total
	Acceptable	Marginal	Unsatisfactory					
Number of sites completed	13	10	< 10	22	5	13	6	46
On budget: current cost of system (in millions)	\$79 mil	\$82 mil	> \$82 mil	\$79 mil	\$79 mil	\$79 mil	\$79 mil	\$79 mil (\$71.5 mil spent as of 12/31/06)
Cost per user per month to maintain	\$31.25	\$35.00	>\$35.00	\$27.40	\$24.68	\$20.58	\$24.32	\$24.25
Total system availability	99.999%	98%	< 98%	99.53%	99.48%	99.31%	99.26%	99.395%
Total system grade of service	99.999%	98%	< 98%	100%	98%	99.99%	100%	99.49%
Individual sites - % of sites with 98% availability	99.999%	98%	< 98%	86.21%	86.21%	96.08%	95.45%	90.98%

FINANCES

FINANCIAL PHILOSOPHY

SAVING LIVES, SAVING MONEY

Project Hoosier SAFE-T is an enormous project and has enormous benefits never realized before by Indiana. In implementing SAFE-T, the IPSC is continually working with its vendors and partners to avoid costs and minimize expenses while maintaining a commitment to first responders to provide them with a reliable and effective statewide communications system. Cost saving measures include:

- Leasing towers rather than constructing from the ground up
- Partnering with local governments to use their infrastructure
- Creatively seeking funding, including federal grants and Homeland Security funds
- Re-engineering the original 156 site plan to a 126 site plan

The IPSC also has ensured that first responders joining SAFE-T save as well. The IPSC secured 20-25% off list price and negotiated fixed pricing for 7 years on communications equipment. In fact, if the IPSC vendor offers a lower price on first responder equipment anywhere in the United States, it must offer that price to Indiana first responders as well.

The 2002 Indiana General Assembly, spurred in part by the 9-11 tragedy, authorized funding for Project Hoosier SAFE-T. No new funding source was created. State funding comes from certain BMV transactions. As of 2006, approximately \$39.9 million in funding has come from the state. In addition to paying for site construction and equipment, these funds pay for operating costs and maintenance.

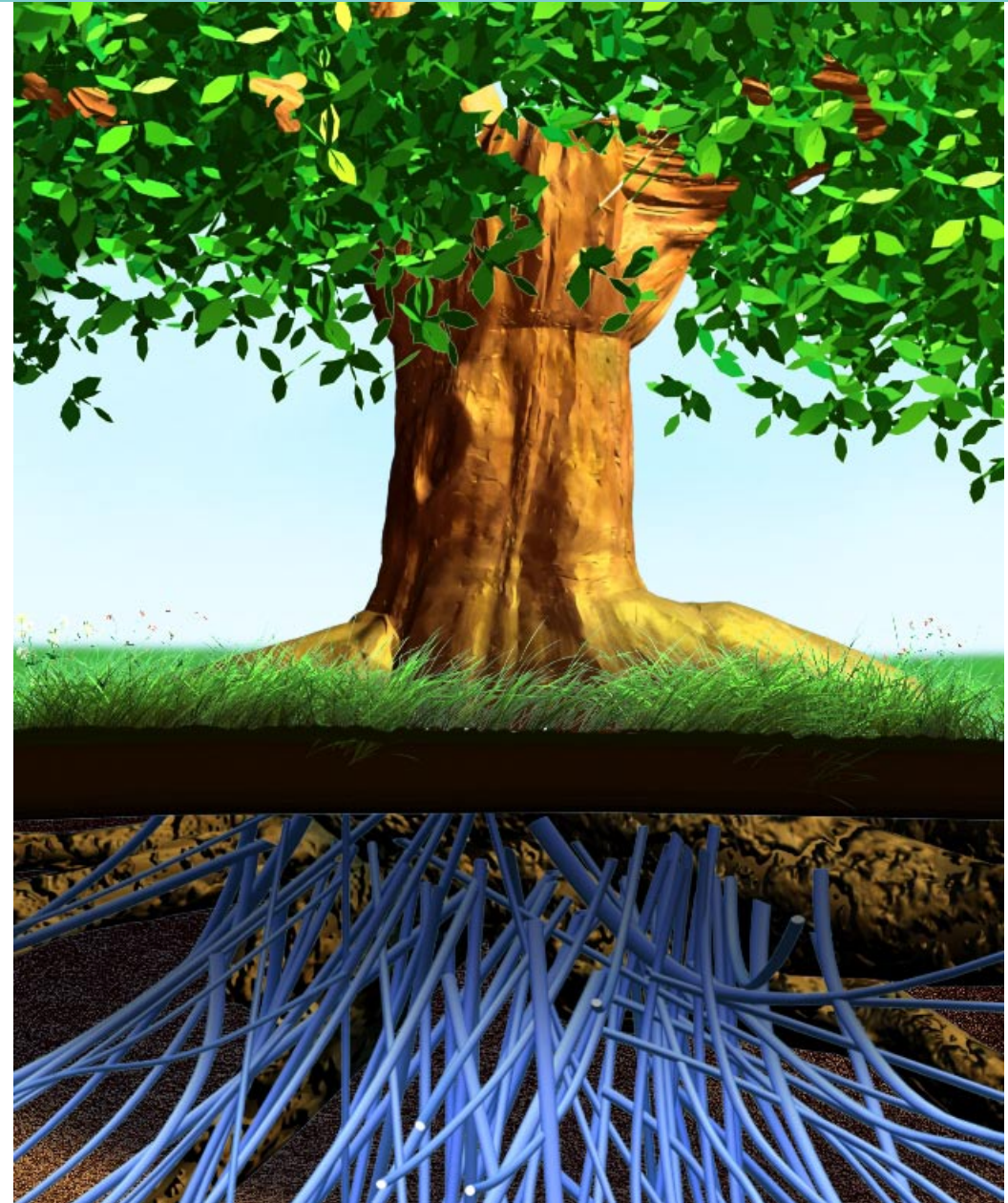
To date, more than a third of the build-out has been funded by federal sources.

– \$9,534,000.00 borrowed

– \$3,100,000.00 payments being processed-12/06

• Total Construction Project Expenditures (anticipated June 07) – \$81,300,000.00

• Repayment of IFA debt by IPSC – March 2010



FINANCIAL HIGHLIGHTS

■ Most states are building systems for interoperable communications, but not as cost-effectively as Indiana's Project Hoosier SAFE-T. For example:

■ Michigan has spent about \$200 million to date on their 181-site system, and the state charges users a \$25 activation fee and \$200 annual fee per radio;

■ Ohio's \$272 million contract provides for a system of 200 towers (88 counties), and additional funds may be requested. MARCS charges a small annual access fee per base station;

■ In Illinois, the state contracts with Motorola for interoperability. There is a \$53 per month per radio user fee in addition to an activation fee. Only Motorola equipment can be used on the system.

■ In comparison, Indiana's completion cost is \$81 million, \$9 million under the \$90 contract budget.

■ The 800 MHz technology allows for a wide range of users and equipment and charges NO USER FEES for agencies to access the system. The state is building and maintaining the communications sites and infrastructure for the system. User agencies are responsible for purchasing the radios and other equipment needed to use the network.

■ The 2002 Indiana General Assembly, spurred in part by the 9-11 tragedy, authorized funding for Project Hoosier SAFE-T. No new funding source was created - money comes from certain BMV transactions. In addition to paying for site construction and equipment, these funds pay for operating costs and maintainance.

■ To date, more than a third of the build-out has been funded by federal sources.

■ Hoosier Notes: \$9,534,000.00 has been borrowed to date. Debt repayment is scheduled to be completed March 2010

■ Project Hoosier SAFE-T's long term strategy is not to own towers, rather to share space on existing state owned facilities, or lease from third party commercial vendors. In partnership with the state police and INDOT, we are sharing their facilities where possible.

FY 2006 IPSC EXPENDITURES

Construction	3,375,102.23
Equipment	6,875,841.42
Tower Integration	1,354,296.03



FINANCES

THE BIG PICTURE

The chart below shows the different sources of funding for Project Hoosier SAFE-T since its inception. These figures reflect not only project construction and maintenance, but also grants to local agencies for radios and other user equipment.

	BMV	CDC	CMAQ	DOJ	DOT	FEMA	General Fund	Hoosier Notes	ODP	USDOJ	USDOT	TOTAL
2000				2,500,000			6,709,092					9,209,092
2001			3,000,000	2,993,400							793,615	6,787,015
2002				3,000,000	1,654,637	909,556						5,564,193
2003	18,907,080	1,429,679							2,174,396	993,500	415,971	23,920,626
2004	9,521,221	3,279,477			2,000,000				5,346,283			20,146,981
2005	9,441,343								1,800,000			11,241,343
2006	13,033,256							9,534,000	800,000			23,367,256
TOTAL	50,902,900	4,709,156	3,000,000	8,493,400	3,654,637	909,556	6,709,092	9,534,000	10,120,679	993,500	1,209,586	100,236,506

ACRONYMS

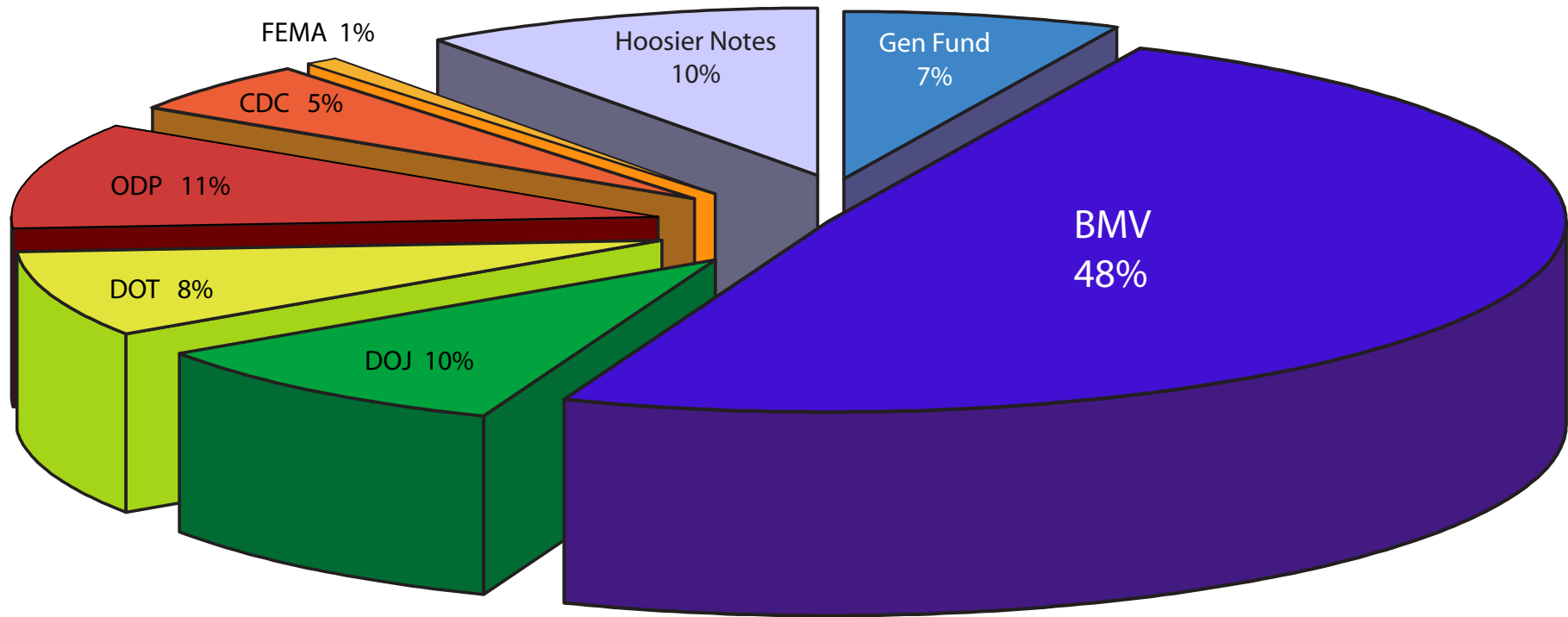
FEMA - Federal Emergency Management Agency
 ODP - Office for Domestic Preparedness
 USDOJ - U.S. Department of Justice
 USDOT - U.S. Department of Transportation

BMV - Bureau of Motor Vehicles;
 CDC - Center for Disease Control
 CMAQ - Congestion Mitigation and Air Quality
 (CMAQ) Improvement Program
 DOJ - Department of Justice
 DOT - Department of Transportation

FINANCES

SOURCES OF FUNDS

Chart composed with financial data ending November 2006



STATE SOURCES

General Fund - Original Allocation	\$6,709,092	} 66%
BMV	\$46,989,340	
Hoosier Notes	\$9,534,000	

FEDERAL SOURCES

DOJ	\$9,486,900	} 34%
DOT	\$7,864,223	
ODP	\$10,120,679	
CDC	\$4,709,156	
FEMA	\$909,556	

TOTAL: \$96,322,946

STAFF & COMMISSION

IPSC COMMISSION

The Integrated Public Safety Commission (IPSC) was established in 1999 (IC 5-26-2-1) and charged to implement a statewide voice and data communications system. The IPSC is a state agency comprised of 12 Commissioners and seven staff members. The statutory duty is being fulfilled through Project Hoosier SAFE-T.

As the governing body for Project Hoosier SAFE-T, the IPSC constitutes a broad spectrum of first responder/public safety, governmental, and private-sector knowledge and experience. Not only is the diverse representation on the IPSC

beneficial to the implementation of the project, it is crucial. In other words, the cornerstone of Project Hoosier SAFE-T is inclusion; involving as many stakeholders as possible in developing and constructing SAFE-T, as has been the guiding principle since the inception of the project.

The Commission meets quarterly and as needed to review project progress, policies, procedures and resolutions, and fine-tune strategies for the technological and operational implementation of SAFE-T.



2006 Integrated Public Safety Commission

- Chair: Paul E. Whitesell, Ph.D., Superintendent, Indiana State Police
- Albert Chen, Telamon Electronic Corporation
- Doug Cox, Office of Public Safety, DePauw University
- Randy Fox, DeKalb County EMS
- Thomas Fuentes, FBI Special Agent In Charge, Indianapolis Office
- Nick Gulling, Hancock County Sheriff
- Rick Gunselmann, Police Chief, City of Jasper
- Charles Henderson, Mayor, City of Greenwood
- Marla Irving, Allen County Commissioner, Ft. Wayne
- Richard Linenburg, President, Knox County E-911 Board, Vincennes
- William Newgent, Chief, Greencastle Fire Department
- Richard Worman, Former State Legislator, Fort Wayne

STAFF & COMMISSION



The IPSC works with two advisory groups on SAFE-T, which are the Integrated Law Enforcement Council (ILEC) and the State Agency Public Safety Committee (SAPSC).

Integrated Law Enforcement Council

The ILEC unites statewide agencies and associations that represent public safety and local governments in developing and implementing policy for improving interagency cooperation and communication. The current members involved are:

- Association of Indiana Counties
- Federal Bureau of Investigation
- Indiana Association of Chiefs of Police
- Indiana Association of Cities and Towns
- Indiana Black Troopers Association
- Indiana Criminal Justice Institute

- Indiana Department of Homeland Security
- Indiana Fire Chiefs Association
- Indiana Fraternal Order of Police
- Indiana Prosecuting Attorneys Council
- Indiana Sheriffs Association
- Indiana State Police
- Indiana State Police Alliance
- Indiana Troopers Association
- Law Enforcement Training Board
- Office of State Fire Marshal
- Professional Firefighters Association
- Prosecuting Attorneys Council
- State Emergency Medical Services
- Indiana Volunteer Firemen's Association
- National Emergency Number Assn
- Department of Transportation

State Agency Public Safety Committee
SAPSC and the SAPSC technical subcommittee combine the knowledge and resources of state personnel in developing and implementing interoperable communications that satisfy the particular needs of state government. State agencies comprising SAPSC and its technical subcommittee are:

- Military Department of Indiana
- Indiana State Police
- Department of Environmental Management
- Department of Revenue
- Department of Homeland Security
- Department of Natural Resources

- Department of Transportation
- Department of Administration
- Department of Correction
- Alcohol and Tobacco Commission
- Indiana State Department of Health

Also, an IPSC Policy Subcommittee meets on occasion to develop and recommend operational policies to the Commission. The members of the IPSC Policy Subcommittee include representatives of law enforcement, fire, 911, and emergency medical services. They work together to formulate sound poli-

STAFF & COMMISSION

IPSC STAFF

The Integrated Public Safety Commission is designated by statute to carry out the mission of creating an interoperable communications system for Hoosier first responders. A small staff of 10 employees is driving the process. Following is a list of these employees, their jobs, and contact information.

Dave Smith, Director of Implementation - Dave plans, schedules, coordinates and supervises daily site construction activities with vendors providing services and equipment for implementation of communications sites throughout the state. Dave also serves as the IPSC staff team leader. dsmith@ipsc.IN.gov 317.233.9169.

John Asher, Field Coordinator (Technical) - John tracks communications site construction completion and contract compliance through on-site inspection of contractor work. He also helps Dave Smith in the planning and oversight of contractor site development work. jasher@ipsc.IN.gov, 317.233.2988.

Shantae Brodley, Administrative Assistant - Shantae is the office accounting clerk and handles accounts payable and other issues. sbrodley@ipsc.IN.gov , 317.234.3529.

Douglas Cochrane, Network Engineer, manages network operations and mobile data/message switching functions for the project. He also provides customer support to local users. dcochrane@ipsc.IN.gov, 317.234.1540.

Jeanne Corder, Comptroller - Jeanne develops, maintains and oversees the fiscal and budgetary aspects of Project Hoosier SAFE-T. She serves as the liaison with State Budget Agency and Finance Authority on IPSC funding. jcorder@ipsc.IN.gov , 317.234.1541 .

Dennis Eaton, Senior Systems Administrator, oversees all operating systems related technology, operations and software/systems upgrades for Project Hoosier SAFE-T He is also responsible for day-to-day customer support. @ipsc.IN.gov, 317.234.1540.

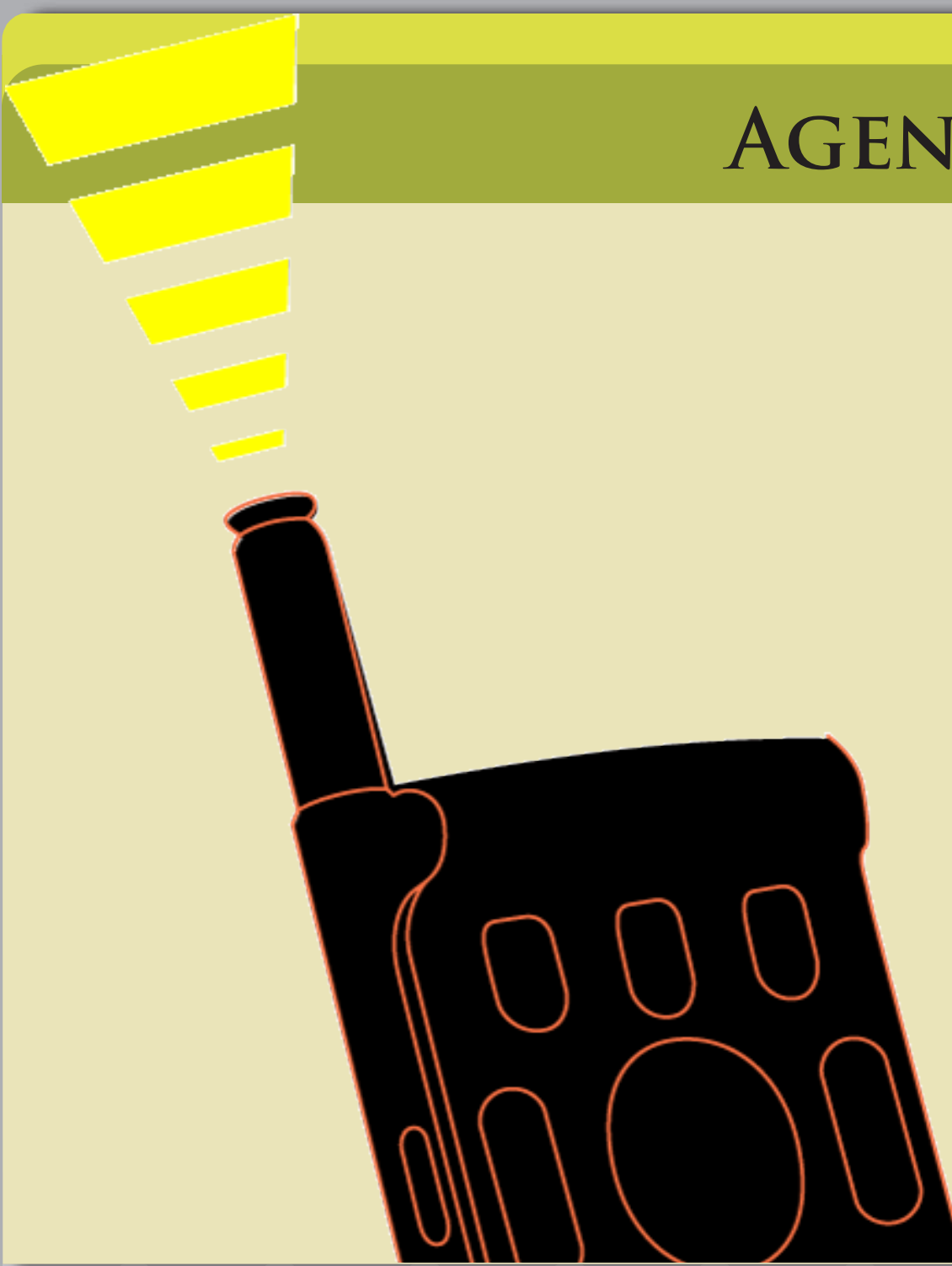
Sally Fay, Communications Director - Sally designs, writes and develops SAFE-T newsletters, brochures, annual reports and other publications. She also maintains the website and develops graphic illustrations, such as maps, for the project. @ipsc.IN.gov, 317.234.2572.

Julie Sheppard, Administrative Assistant - Julie is the staff contact for Commission members. She schedules meetings and provides other administrative support for the Commission and staff. She also directs the lease acquisition process for the agency. jsheppard@ipsc.IN.gov, 317.232.8985.

Steve Skinner, Field Coordinator (User Agency Liaison) - Steve serves as the Project Hoosier SAFE-T liaison to local, county and state agencies. Along with Dave Vice, Steve travels the state, establishing working relationships with local first responders, helping agencies join the system, and coordinating other issues between agencies and IPSC. sskinner@ipsc.IN.gov, 317.233.8625.

Dave Vice, Field Coordinator (User Agency Liaison) - Dave serves as the Project Hoosier SAFE-T liaison to local, county and state agencies. Along with Steve Skinner, he travels the state to establish working relationships with local first responders, helps agencies join the system, and coordinates other issues between agencies and IPSC. dvice@ipsc.IN.gov, 317.232.8993.





SYSTEM USERS & MAPS

AGENCY USERS: OVERVIEW

25,000 Voice System Users
600 Mobile Data System Users

SAFE-T Users By Agency Type

16 State Agencies
59 County Sheriff's Offices
221 local law enforcement agencies
50 local EMS Services
371 Fire Departments/Services
3 Federal Agencies
14 School Districts
55 Hospitals
9 Universities

Large System Users (over 1000)

Indiana Department of Transportation (2402)
Indiana Department of Corrections (1714)
Indiana State Police (3527)
Johnson County (1758)
Delaware County (1628)
Tippecanoe County (1307)

Large System Users (over 100)

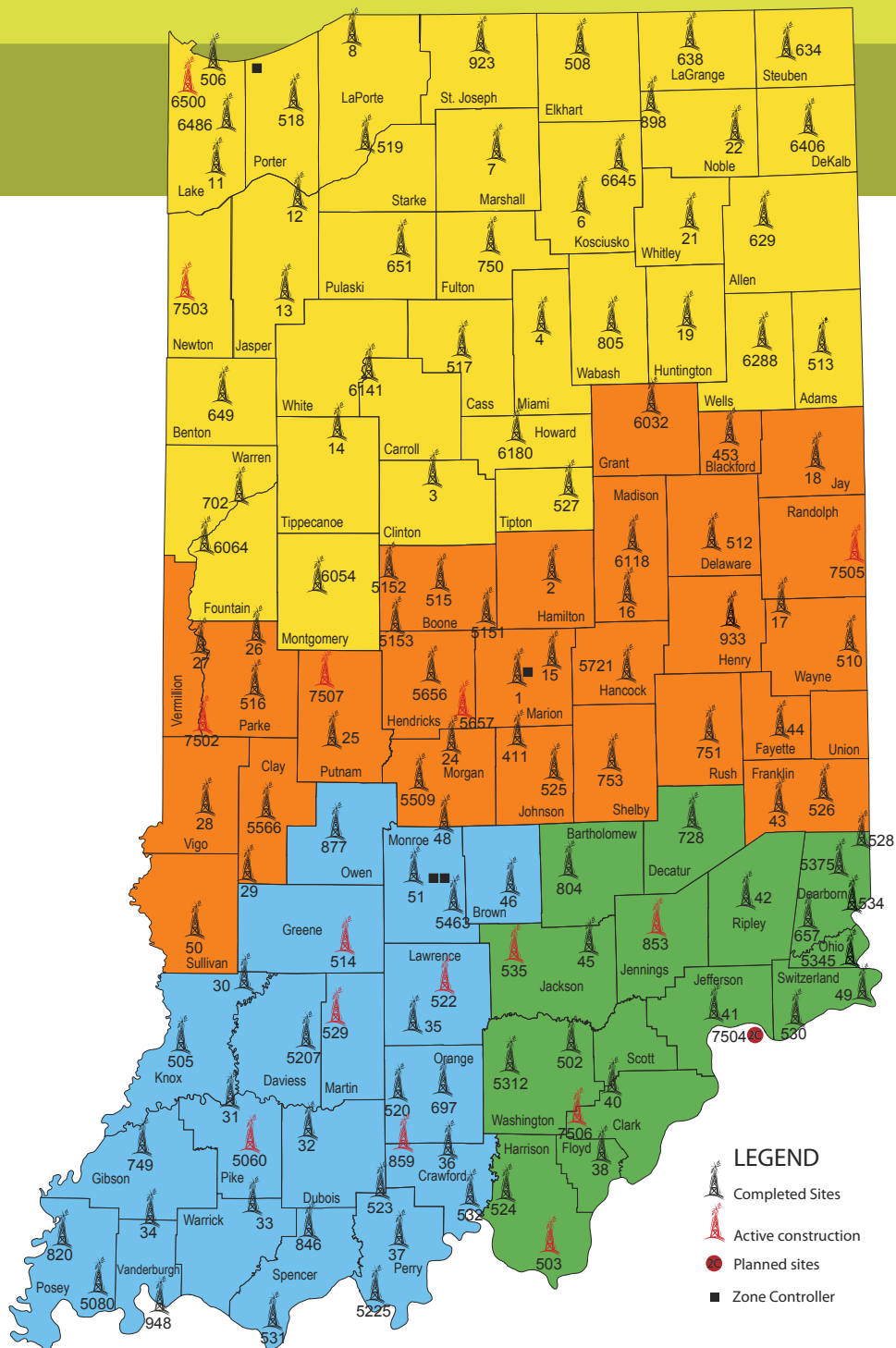
Knox County (744)
Vermillion County (585)
Parke County (513)
Boone County (547)
Hendricks County (631)
Indiana Dept. of Homeland Security (307)
Monroe County (523)
Dearborn County (428)
Bartholomew County (392)
Indiana Dept. of Natural Resources (321)
Vigo County (409)
Noble County (345)
Marion County (331)
Montgomery County (273)
Fountain County (240)
Cass County (235)
Indiana Excise Police (212)
Pulaski County (210)
Grant County (201)

Henry County (186)
Wells County (185)
Lake County (175)
Indiana Dept. of Health (168)
Allen County (167)
Jefferson County (158)
White County (157)
Benton County (134)
Indiana Dept. of Administration (127)
Hancock County (123)
Miami County (130)
Carroll County (121)
Morgan County (114)
Putnam County (107)
Warren County (103)

Numbers accurate as of 12.5.06

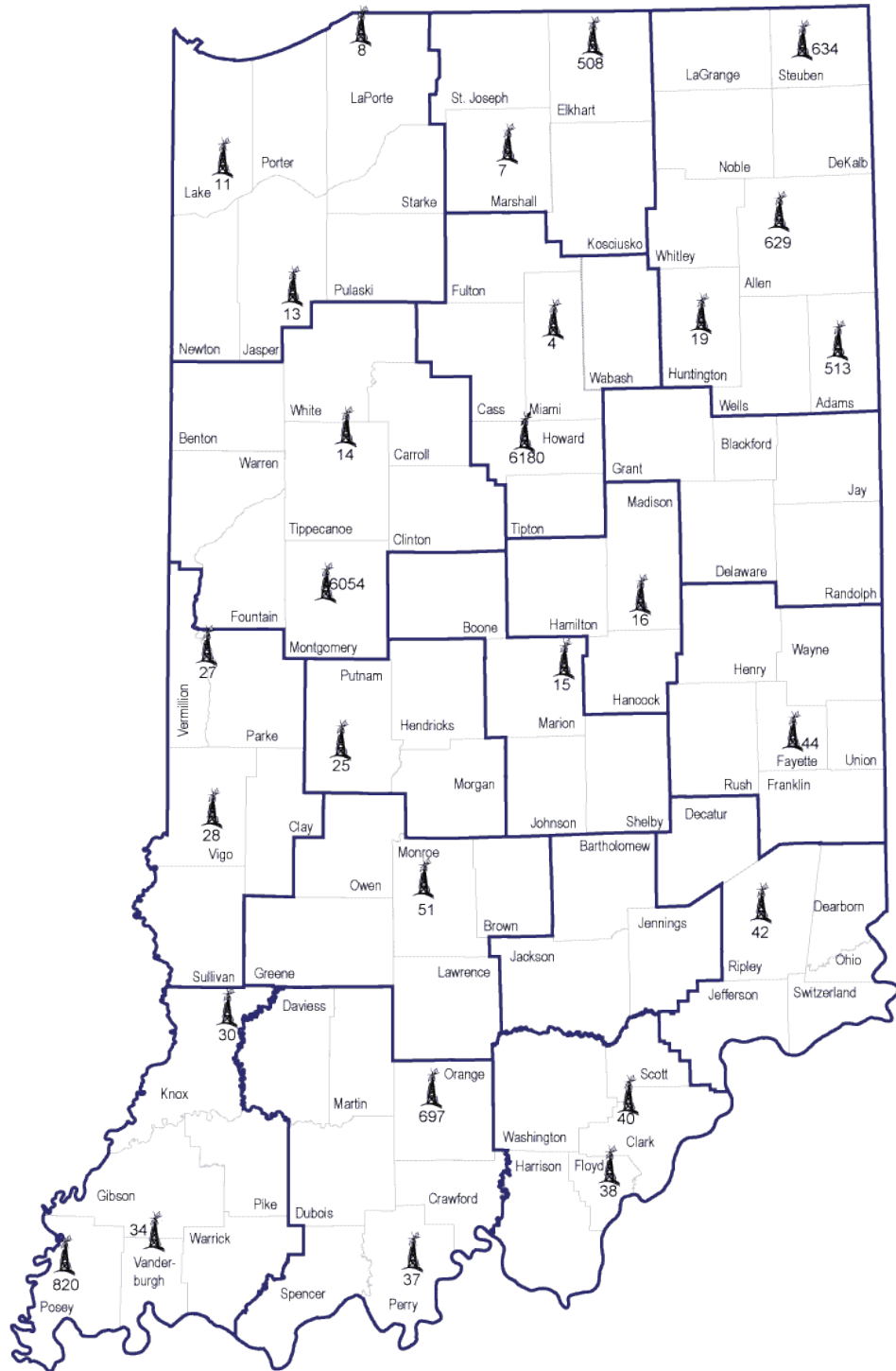
SYSTEM USERS & MAPS

CURRENT MAP



SYSTEM USERS & MAPS

NPSPAC CHANNELS



Lowell ISP

Site 8 - Summit - CALL & TAC1
 Site 11 - Lowell - CALL & TAC 4
 Site 13 - Monon - CALL & TAC3

Bremen ISP

Site 7 - Plymouth - CALL & TAC4
 Site 508 - Elkhart - CALL & TAC3

Ft. Wayne ISP

Site 19 - Huntington - CALL & TAC3
 Site 513 - Decatur - CALL & TAC2
 Site 629 - Ft. Wayne - CALL & TAC4
 Site 634 - Angola - CALL & TAC1

Lafayette ISP

Site 14 - Lafayette - CALL & TAC2
 Site 6054 - Crawfordsville - CALL & TAC4

PerISP

Site 4 - Peru - CALL & TAC1
 Site 6180 - Kokomo - CALL & TAC3, TAC4

Terre Haute ISP

Site 27 - Newport - CALL & TAC1
 Site 28 - Terre Haute - CALL & TAC2

Putnamville ISP

Site 25 - Putnamville - CALL & TAC3

Indianapolis ISP

Site 15 - Indianapolis - CALL & TAC1, TAC2

Pendleton ISP

Site 16 - Pendleton - CALL & TAC3

Redkey ISP

None

Connersville ISP

Site 44 - Connersville - CALL & TAC4

Evansville ISP

Site 30 - Edwardsport - CALL & TAC3
 Site 34 - Evansville - CALL & TAC4
 Site 820 - New Harmony - CALL & TAC2

Bloomington ISP

Site 51 - Bloomington - CALL & TAC4

Jasper ISP

Site 37 - Leopold - CALL & TAC4
 Site 697 - Paoli - CALL & TAC2

Seymour ISP

None

Sellersburg ISP

Site 40 - Clark - CALL & TAC3
 Site 38 - Floyds Knob - CALL & TAC2

Versailles ISP

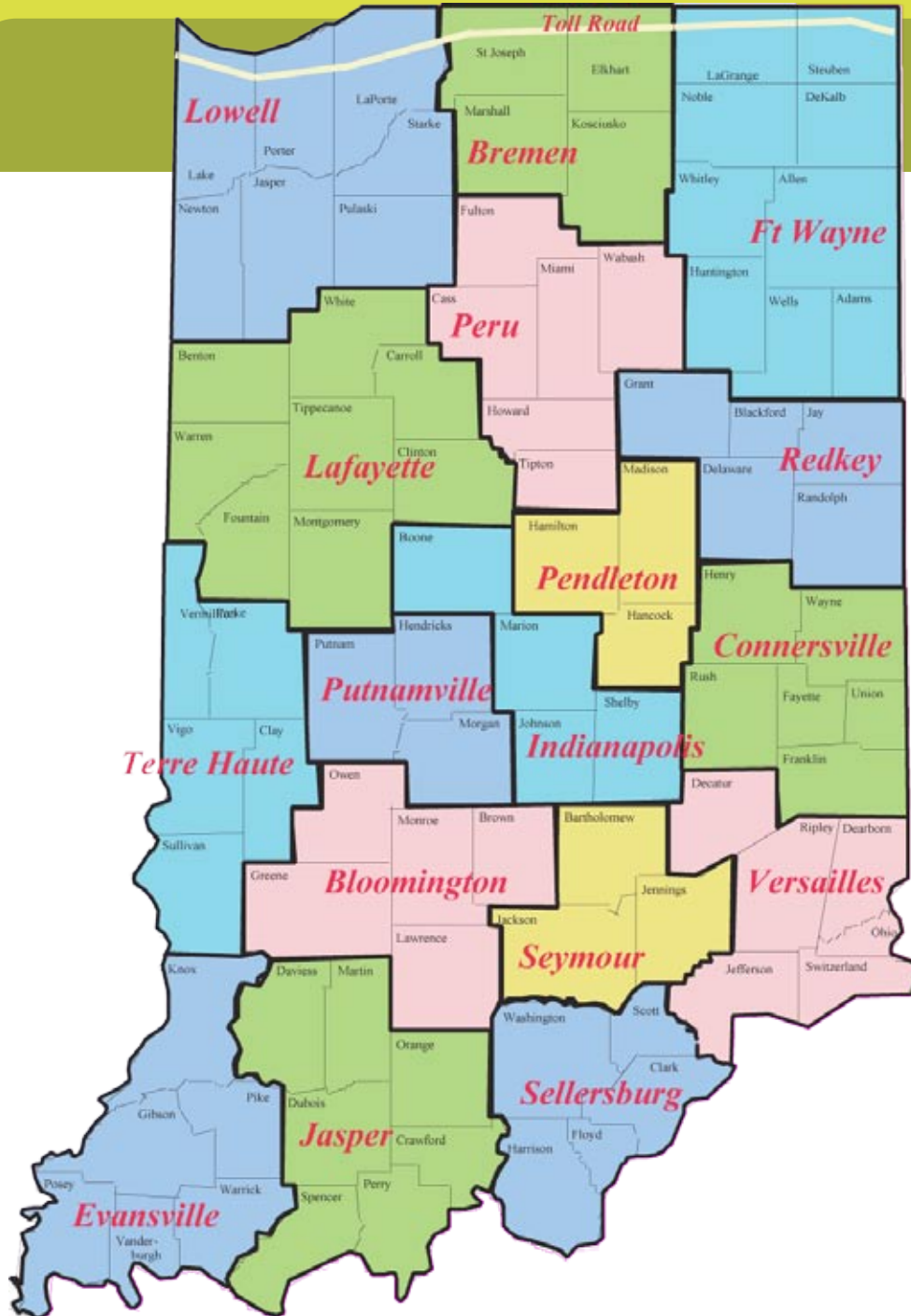
Site 42 - Versailles - CALL & TAC3

NPSPAC - Conventional 800 MHZ Set-up

Designator	Transmit	Tone	Receive	Tone
CALL	821.0125	156.7	866.0125	156.7
TAC1	821.5125	156.7	866.5125	156.7
TAC2	822.0125	156.7	867.0125	156.7
TAC3	822.5125	156.7	867.5125	156.7
TAC4	823.0125	156.7	868.0125	156.7
TalkAround	855.2375	192.8	855.2375	192.8

SYSTEM USERS & MAPS

MUTUAL AID



National Talkgroups

NPSAC-Call
NPSAC-TAC1
NPSAC-TAC2
NPSAC-TAC3
NPSAC-TAC4
NPSAC-TALK AROUND

IPSC Statewide Talkgroups

SW_MA1
SW_MA2
SW_MA3
SW_MA4
SW_MA5
SW_MA6
SW_MA7

IPSC Regional Talkgroups

A = Lowell
A_MA1
A_MA2
A_MA3

E = Peru
E_MA1
E_MA2
E_MA3

I = Putnamville
I_MA1
I_MA2
I_MA3

M = Seymour
M_MA1
M_MA2
M_MA3

B = Bremen
B_MA1
B_MA2
B_MA3

F = Redkey
F_MA1
F_MA2
F_MA3

J = Indianapolis
J_MA1
J_MA2
J_MA3

N = Versailles
N_MA1
N_MA2
N_MA3

C = Fort Wayne
C_MA1
C_MA2
C_MA3

G = Pendleton
G_MA1
G_MA2
G_MA3

K = Connersville
K_MA1
K_MA2
K_MA3

O = Evansville
O_MA1
O_MA2
O_MA3

D = Lafayette
D_MA1
D_MA2
D_MA3

H = Terre Haute
H_MA1
H_MA2
H_MA3

L = Bloomington
L_MA1
L_MA2
L_MA3

IN THEIR OWN WORDS



THE FOLLOWING WORDS ARE UNEDITED, UNSOLICITED COMMENTS FROM A FEW SAFE-T SYSTEM USERS.

from Indiana State Police

"...On the afternoon of the 14th, just hours after the meeting, we sent a Trooper on a medical call in town. Once the trooper arrived, he spoke direct on N MA 1 with the responding EMS unit concerning the status of the patient, thereby eliminating the "our dispatcher calling their dispatcher to relay to the ambulance" run-around.

Today, we had a trooper in Jefferson County backing up a deputy at a domestic battery. The trooper coordinated his response on MA 1 with the county dispatch center and with the on scene deputy. Sounds like the Jefferson county problem is fixed!

Thanks again for coming to our meeting last week."

from DeKalb County

"...By the way, a week ago Wednesday, we gave out two radio's to each of the 9 fire chiefs. Last Saturday, the Ashley Fire Department (north border of DeKalb county) attempted to talk to the DeKalb Sheriff's Dispatch from their handheld without success. The Chief thought about his 800 radio, keyed it up and DeKalb answered immediately! That made the front page of the Auburn newspaper last night! We've got some converts without beating them about the head and shoulders! The 4 ambulances each have one radio and I anticipate that the Sheriff's deputies will get their radio's next week, the other police departments will be issued radios by the end of this week. There will be some considerable system activity in DeKalb County as the guys figure out their radios and the system capability."

from Gibson County EMA

"...Wanted to inform you of an incident that I just learned of. On Tuesday, December the 19th, I delivered a 800mhz radio to the Haubstadt Town Marshall. Later that evening while on patrol, he observed an explosion and upon investigating found that a vehicle had struck a utility pole. The vehicle became inverted after being airborne and ejected the driver. Since it was dark, the Marshall did not realize the severity until he actually found the vehicle and driver. The driver was found facedown in mud and water and the Marshall quickly administered aid. He tried to call his dispatch with the current and existing radio (155.595) and failed. He instinctively remembered he had a new radio and utilized it. IT WORKED PERFECTLY!!!!!! He was heard on the first try and spoke to emergency agencies responding as well as LifeFlight. The driver has multiple injuries and will survive. The Marshall is to be commended and the "INTEROPERABILITY" has paid for itself in Gibson County.

With Gibson County only receiving 21 radios, we can get the job done! However, if ever we needed more radios for Public Safety personnel, now is the time. For the area of southwestern Indiana, most local departments cannot provide this tool.

Thought I'd send this along and maybe you can understand my plea for additional support for radios. As a retired Indiana State Police, the need is great, while the hope is greater!!!!"

from the Indiana Army National Guard

"...I appreciate how attentive and friendly, yet professional, you and your staff are in addressing the needs of the Indiana Army National Guard in regards to the Hoosier Safe-T system.

When I send a crew out for radio repair missions at various armories around the state, I send them with an XTS5000 to keep in touch and do informal coverage as they move through county to county. I find the coverage exceptional throughout most of the state.

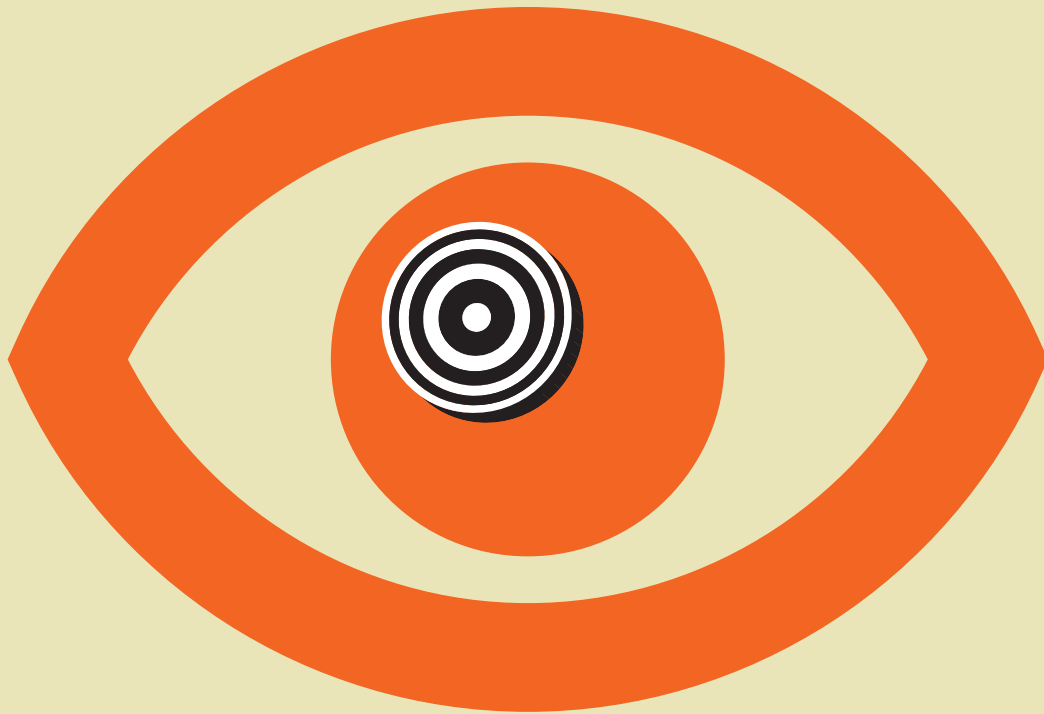
In March 06, I reported that I couldn't get coverage from the armory at Marion. Now at various locations in Marion I could get coverage, but not around the armory. I see that you've added, or will very soon add, Marion to the "active site" designation. I'm confident that problem would be alleviated.

In June 06, I led a repair mission to Tell City and I found the coverage on SR-37 between I-64 and Tell City to be spotty at best. I saw from a MAY 06 map that Perry County had towers under construction and didn't bother to report it because your agency was obviously aware of the conditions in Perry County at the time. I see from your new map that Perry County now has three operational towers, so now that issue has been addressed.

I will continue to do informal coverage as my repair crew travel through Indiana counties to visit the various armories. If anything major crops up, we'll let you know. I would like to end this message by saying that I have a reassured feeling knowing that we can respond to State Active Duty missions throughout Indiana and be able to communicate effectively."

LOOKING AHEAD

OUR GOALS FOR THE FUTURE



In 2007

- We will complete system construction by June, 2007.
- We will continue to aggressively pursue funding to help local first responders afford radios and other equipment needed to join the system.
- Whenever possible, the IPSC will reduce costs. Our primary goal, however, will be to save lives through interoperable communication.
- We will continue to expand the use of mobile data capabilities. Through mobile data, first responders will be able to share criminal history, driving records, and other database information to prepare them for any situation.
- We will publish and distribute a statewide interoperability plan that details emergency response protocol.
- We will continue to serve as the lead agency for the 800 MHz Reconfiguration Program, providing information and guidance to county and local public safety organizations as they comply with this complex reorganization of the radio spectrum.
- We will develop and implement a web-based training system to provide 24-7 training access to the maximum number of users.
- We will work with first responders and public safety personnel to eliminate disparate coded language and move towards the adoption of common language for day-to-day operations and mutual aid events.

SYSTEM TERMS & DEFINITIONS



Interoperability....
the ability of emergency response officials to share information via voice and data signals on demand, in real time, when needed, and as authorized. Communications interoperability makes it possible for emergency response agencies to work effectively together, maximize resources, and effectively plan for government support operations, emergencies, disaster relief and recovery.

■ **Affiliated Zone** - The zone to which a radio is currently affiliated.

■ **Affiliation** - The process in which a subscriber unit signals to the system which talkgroup or site it is currently associated with.

■ **Affiliation Group** - The talkgroup to which a radio is currently affiliated.

■ **Alias** - An alphanumeric name used to identify a radio, talkgroup, site, etc. rather than using the assigned six-digit ID number.

■ **Analog modulation** - A message signal impressed on a carrier signal for transmission through a channel

■ **Announcement Group** - A collection of two or more talkgroups. Also called a multigroup.

■ **Announcement Group Call** - A group call involving two or more talkgroups. Also called a multigroup call.

■ **Announcement Group ID** - Unique identifier assigned to each announcement group in a Motorola trunking system.

■ **APCO** - Association of Public Safety Communications Officers. A national organization of communications professionals that supports and promotes public safety communications concerns.

■ **Busy Queuing** - A method of queuing a call when resources are not available to grant the call.

■ **Central Controller** - Equipment at a master site or remote site that controls a set of base stations or repeaters. A central controller is typically a computer that processes inbound and outbound data traffic, assigns repeaters for voice channel access, and generally monitors and maintains order in the system.

■ **Channel** - Single unidirectional or bidirectional path for transmitting, receiving, or both, of electrical or electromagnetic signals

■ **Console** - A GUI-based operator position that allows the console operators to interact with the system and communicate with radio users.

■ **Control Channel** - Communication channel implemented by a base

station or repeater used to transmit and receive channel assignment data or process other control commands from the system. Contrast with a base station or repeater functioning as a voice channel used to transmit and receive voice information.

■ **Conventional radio system**
- Non-trunked, similar to party-line in that the user determines availability by listening for an open channel

■ **Digital modulation** - Digital data sequence (1's & 0's) placed on a carrier signal for transmission through a channel

■ **Disconnect Tone** - A subaudible, 163.64 Hz tone generated by a radio when dekeying. The controller uses this tone to start the timeout timer in message trunking. In transmission trunking, receipt of the Disconnect Tone causes an immediate release of the voice channel by the controller.

SYSTEM TERMS & DEFINITIONS

■ **Emergency Call** - The highest priority service of talkgroup call. When the emergency button of a subscriber unit is pressed and the PTT pressed, an Emergency Call is granted.

■ **Encrypt** - To convert plain message into unintelligible forms through cryptosystem

■ **Frequency** - The number of cycles or events per unit of time

■ **Frequency bands** - Frequency bands where land-mobile radio systems operate in the US including the following:

High HF: 25-29.99 MHz

Low VHF : 30-50 MHz

High VHF: 150-174 MHz

Low UHF: 450-470 MHz

UHF TV Sharing: 470-512 MHz

700 MHz: 764-776/794-806 MHz

800 MHz: 806-869 MHz

■ **Interoperability** - Communications systems that can exchange information or services instantly and satisfactorily.

■ **Multigroup Announcement Group** - A collection of two or more talkgroups.

■ **Multigroup Call Announcement Group call** - A group call involving two or more talkgroups.

■ **Mutual Aid Channel** - A national or regional channel that has been set aside for use only in mutual aid/interoperability situations, usually with restrictions and guidelines governing usage

■ **Patch** - A subsystem that enables a mobile or portable radio on one system/channel to communicate with one or more radios on a different system/channel via a control center console or interoperability device

■ **Remote Site** - A site that consists of repeaters and a site controller, which are linked to a Master Site.

■ **Repeater Station** - a master site or remote site that broadcasts and receives RF signals to and from mobile and portable radios in the field.

■ **RF** - Radio Frequency.

■ **Simulcast** - A wide-area trunked system configuration that uses multiple transmitter and receiver sites to extend coverage of the system. All the corresponding channel numbers at all the sites uses the same frequency.

■ **SmartZone OmniLink** - A software-based, very-wide-area radio communications network based on the interconnection of multiple SmartZone systems.

■ **Talkgroup** - A group of radio users that can share calls and messages as a group. A talkgroup comprises a group of users who have a need to communicate with each other.

■ **Talkgroup Call** - Call involving other users within the originating user's own talkgroup.

■ **Talkgroup ID** - Unique identifier assigned to each talkgroup in a Motorola trunking system.

■ **Talkgroup Scan** - A feature that allows a subscriber unit to scan those talkgroups that have an affiliated member at the scanning radio's site. The Talkgroup Scan list(s) must be programmed in the radio.

■ **Trunking** - A method of sharing a small number of communication paths among a large number of users. When a user wants to transmit a message, the trunked system automatically selects a currently unused channel pair and assigns it to the user, decreasing the probability of having to wait for a free channel.

■ **Unit ID** - Unique identifier assigned to each radio in a Motorola trunking system.

■ **Users** - The first responders/public safety officials operating on the Project Hoosier SAFE-T system.

■ **Zone Controller** - Handles the call processing, mobility, and some network management functions in an Omni-Link system. Each zone

ONLINE

GET LOADS MORE INFO

not only about Project Hoosier SAFE-T, but also about Interoperable Communications in general.

[Project Hoosier SAFE-T Website](#)

[SAFECOM Website](#)

[Indiana Department of Homeland Security](#)

[800 MHz Rebanding Links](#)

[Interoperable Communications in other States: links to state websites](#)

Name that "Tune"

Press the buttons below to listen to and identify some of the beeps, bonks and squelches that can be heard on the SAFE-T system



System
Busy



Channel
Granted



Low
Battery



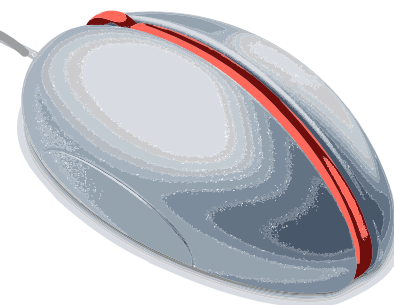
Denial of
Service

[SAFE-T by the Numbers:
Interesting facts about the
Hoosier State.](#)

[SAFE-T Training: Power-
point Presentation](#)

[Indiana's Biggest Disasters: .](#)

[Nationwide Plan Review
Phase 1 Phase 2](#)



ENDNOTES THANKS

The staff of the Integrated Public Safety Commission would like to thank the members of the Indiana General Assembly; the Indiana Congressional Delegation; Governor Mitch Daniels and Lieutenant Governor Becky Skillman. Public safety is truly an issue that claims no political affiliation, because when there is an emergency, whether caused by natural disasters such as hurricanes, traffic accidents, fires, civil disturbances, or terrorism, nothing else matters except quick help.

We'd also like to thank the members of the SAPSC and the ILEC for their dedication to Project Hoosier SAFE-T and their communities, the Indiana state agencies and the federal agencies that have worked so closely with the IPSC, and all first responders and elected officials across the state for serving and protecting Hoosiers and visitors to Indiana.

As always, our doors are open and we invite you to come by for a visit or to log onto our website, www.in.gov/ipsc/safe-t.

Thank you for taking the time to read our report.

--The IPSC team

ENDNOTES

JOIN SAFE-T

Are you interested in participating in Project Hoosier SAFE-T? If so, please indicate how you would use the system:

Purchase radios and fully operate on the system
Use existing system and patch to SAFE-T when necessary
Migrate to Project Hoosier SAFE-T when able.
Remain separate from Project Hoosier SAFE-T.

If remaining separate, would your agency reconsider coming onto the system if state or federal funding were available? Yes No

Agency/System Information

1. What is the size of your agency?
2. How many radios does your agency currently have? Mobiles _____ Portables _____
3. In which frequency band(s) does your voice radio system operate?
Low Band (24 – 50 MHz) 800 MHz
High band (150 - 174 MHz) Other _____
UHF (450 - 512 MHz)
4. Who is the manufacturer of your current system?
5. Who provides service for your system?
6. Does your field personnel use: Mobile Radios Portable Radios Both

7. Are portable radios used inside vehicles? Yes No
8. Do you use remote speaker/microphones on your portable radios?
Yes, with antennas Yes, without antennas No
9. Is your system: Analog Digital Both
10. Do you use encryption? Yes No
11. Describe any significant limitations with your existing system.

Interoperability

(For the purposes of this survey, interoperability should be considered the ability for field personnel from separate agencies to communicate with one another via mobile or portable radios.)

- 1) With which agencies do you have direct radio interoperability?
- 2) List any additional agencies with which you desire to communicate.
- 3) Describe any limitations your agency experiences with communications interoperability.

ENDNOTES

JOIN SAFE-T

Mobile Data

- 1) Does your agency currently use mobile data? (If so, describe) Yes No
- 2) Would you like to use mobile data on the SAFE-T system? Yes No

Dispatching

1) Please indicate the name and location of your Dispatch Center (please indicate if you are dispatched by another agency).

2) If applicable, please indicate the departments and/or agencies for which you provide dispatching services.

3) Do you currently use a personnel paging and/or station alerting system to support operations? Yes No

If yes, briefly describe your system and how it is used.

4) How many dispatch positions does your agency have?

5) What type of radio dispatch equipment does your agency use?

CRT-based console	LEDs and buttons
Desktop radio	Portable Radio
Other (describe)	

6) If your agency migrates to the SAFE-T system, what type of radio dispatch equipment would you use?

CRT-based console	Desktop radio	Portable Radio
Other (describe)		

7. How many dispatch positions would you need on the new system?

Other Information

Please include any other relevant information.

Your Information

Agency Name

Your Name

Title

Agency Street Address

City

Phone Number

ZIP Code

eMail Address

SUBMIT

ENDNOTES FEEDBACK



Dear SAFE-T User:

In order to make sure that Project Hoosier SAFE-T is best serving Indiana's first responders, we need to hear from you!

Please help us serve you better by taking a couple of minutes to tell us about your experience using the SAFE-T network.

Sincerely,
The IPSC Staff

Overall, how would you rank your experience using the SAFE-T system?

☐ ++ ☐ + ☐ <> ☐ - ☐ --

If you indicated that you are less than satisfied with the SAFE-T system, please describe your experience.

If you have had a system problem or question, how satisfied are you with the response you received from IPSC staff to solve/address your issue?

☐ ++ ☐ + ☐ <> ☐ - ☐ --

What kind of features, upgrades, expansions and enhancements would you like to see made to the SAFE-T system in the future?

Is funding for your public safety communications needs adequate?

Yes

No

If no, please describe your public safety communications financial needs in detail.

(For system administrators, agency heads, county emergency managers, etc.): How many agencies/users do you have on the system?

How do you link to the SAFE-T system (kind of dispatch, radios, equipment).

Additional comments/stories about your experience with the SAFE-T network.

May we contact you about your answers?

Yes

No

Your name, agency, phone and email